

Exhibit B

Present Value of the Expected Economic
Impact of Delay in Obtaining Undergraduate Degree
Ariana Qayumi

Prepared at the Request of

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May 19, 2017

QPL_001119

Expected Economic Impact Ariana Qayumi

Summary:

Ms. Qayumi discontinued attending Duke University and enrolled at Stanford University. Ms. Qayumi had anticipated graduating from Duke in the Spring of 2014; she now anticipates graduating from Stanford in the Spring of 2018. Ms. Qayumi will enter the labor-force as a college graduate four years later as a result of her discontinued attendance at Duke. The purpose of this report is to calculate the economic consequences of the four-year set-back in her career.

The present value of Ms. Qayumi's life-time diminished expected earnings resulting from the four-year set-back in entering the labor force is calculated to be **\$1,100,084**. (Due to rounding to the nearest dollar the sums shown may not agree with the components shown throughout this report.)

To be made whole financially it is also necessary that Ms. Qayumi be reimbursed for all expenses incurred while attending Duke University. The expenses would include: tuition payments; book/supplies costs; living expenses; and, transportation expenses. At this time, I do not have sufficient information to prepare this calculation.

Information Reviewed Includes:

Full Time Earnings in the United States, American Community Survey Analysis, published by Expectancy Data;
Offer Letter to prospective Duke graduate;
Data from Wall Street Oasis concerning Analyst's earnings at Barclays;
Conversation with Dr. Bill Marcum, Associate Professor of Finance and Director of the Undergraduate Finance Program at Wake Forest University;
Interest rates on Treasury Inflation Protected Securities from the Federal Reserve website; and,
Communication with Ms. Qayumi.

The amounts calculated in this report do not include the value of any intangible losses that may have occurred such as a diminished ability to enjoy life, or any payment for anxiety, pain and suffering. And, as mentioned, the cost of attending Duke University is not included in the amount.

Expected Earnings if Graduated from Duke University:

Based upon information from Dr. Marcum, Wall Street Oasis and an offer letter to a prospective Duke graduate, Ms. Qayumi's first year earnings upon graduation from Duke would have been \$98,000.

To calculate Ms. Qayumi's expected earnings after the first year I relied upon data reported in *Full-Time Earnings in the United States*, a publication of Expectancy Data. *Full-Time Earnings in the United States* organizes data compiled and reported by the Census Bureau's American Community Survey. *Full-Time Earnings in the United States* reports annual wage data by occupation and age.

The first graph contained in this report shows the average earnings for age groups 18 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 54, 55 to 59, 60 to 64, and 65 to 69 of Financial Analysts in the 75th percentile. In general, an individual's earnings increase after he or she enters the labor force as a result of increases in human capital. As an individual gains experience and knowledge on the job(s) the individual becomes more productive and thus earnings increase. This increase is reflected in what is referred to as the life-cycle earnings pattern that is displayed in the graph.

I used a second-order polynomial to fit the line shown in the graph. It is typical to use a second-order polynomial for this purpose. The equation for the polynomial is reported on the graph. The equations allow for the estimation of earnings at each age for the typical individual.

Ms. Qayumi's expected earnings, if she would have begun working at her age of 22.18 are contained in the series *Expected Earnings Begin Working at Age 22.18 (No Future Inflation)* in Table 1. The series begins at Ms. Qayumi's age of 22 and continues to age 67, Ms. Qayumi's age when she would have been eligible to retire with full Social Security benefits. The amount at age 22 is less as Ms. Qayumi would have been 22.18 years of age when she would have entered the labor-force. The amounts reported in the subsequent years are derived from the formula. The amounts are somewhat less than indicated by information provided by Dr. Marcum and Wall Street Oasis. The calculations at this point are done in real, as opposed to nominal, dollars (see Albrecht and Krueger, *The Earnings Analyst* and Albrecht and Moorhouse, *Journal of Forensic Economics*).

Expected Earnings Given Current Situation:

Ms. Qayumi is currently attending Stanford University. She anticipates obtaining a degree in the Spring of 2018. This would allow Ms. Qayumi to begin working at age 26.18. The column *Expected Earnings Begin Working at Age 26.18 (No Future Inflation)* in Table 1 contains Ms. Qayumi's expected earnings given that she will be able to obtain a similar position. In other words, the earnings are set-back by four years.

Difference in Expected Earnings:

The column *Difference in Expected Earnings (No Future Inflation)* contains the difference in earnings due to entering the labor force four years later. The amounts in the column *Difference in Expected Earnings (No Future Inflation)* are the difference between the previous two columns. The amounts are illustrated in the graph titled *Earnings by Age*.

Present Value of Expected Earnings:

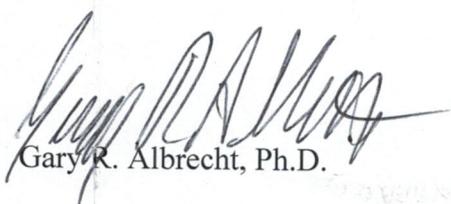
The sum of *Difference in Expected Earnings (No Future Inflation)* in Table 2 is \$1,207,186. Using an inflation rate of 3.00 % I calculated the series *Difference in Expected Earnings (Inflation)* in Table 3. The sum of *Difference in Expected Earnings (Inflation)* is \$1,820,952. The amount required to provide the stream was calculated using the same real interest rate in the no-inflation and inflation situations. (The U.S. Supreme Court suggests using a real rate.) The real rate is derived from the interest rates on Treasury Inflation Protected Securities as reported on the Federal Reserve website. The real rate used is .87 percent. The rate of inflation does not affect the present value required for compensation given the real rate (see Albrecht and Krueger, *The Earnings Analyst* and Albrecht and Moorhouse, *Journal of Forensic Economics*) which fact is recognized by the U.S. Supreme Court.

The *Present Value of Difference in Expected Earnings* is **\$1,100,084** in both the inflation and no-inflation situations. This amount may be referred to as the present value of Ms. Qayumi's difference in expected income as a result of a four-year delay in entering the labor force.

Conclusion:

The present value of Ms. Qayumi's difference in expected earnings as a result of a four-year delay in entering the labor force is **\$1,100,084**. To be made whole financially it is also necessary that Ms. Qayumi be reimbursed for all expenses incurred while attending Duke University.

Please do not hesitate to contact me if any questions arise.



Gary R. Albrecht, Ph.D.

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(Table 1)

Difference in Expected Earnings (No Future Inflation)

Age	Expected Earnings Begin Working at Age 22.18 (No Future Inflation)	Expected Earnings Begin Working at Age 26.18 (No Future Inflation)	Difference in Expected Earnings (No Future Inflation)	Cumulative Difference in Expected Earnings (No Future Inflation)
22	\$80,360	\$0	\$80,360	\$80,360
23	\$103,333	\$0	\$103,333	\$183,693
24	\$109,770	\$0	\$109,770	\$293,463
25	\$116,125	\$0	\$116,125	\$409,589
26	\$122,399	\$80,360	\$42,039	\$451,628
27	\$128,591	\$103,333	\$25,258	\$476,886
28	\$134,701	\$109,770	\$24,931	\$501,817
29	\$140,730	\$116,125	\$24,605	\$526,422
30	\$146,677	\$122,399	\$24,278	\$550,700
31	\$152,543	\$128,591	\$23,951	\$574,651
32	\$158,326	\$134,701	\$23,625	\$598,276
33	\$164,028	\$140,730	\$23,298	\$621,574
34	\$169,649	\$146,677	\$22,972	\$644,546
35	\$175,187	\$152,543	\$22,645	\$667,191
36	\$180,645	\$158,326	\$22,318	\$689,509
37	\$186,020	\$164,028	\$21,992	\$711,501
38	\$191,314	\$169,649	\$21,665	\$733,166
39	\$196,526	\$175,187	\$21,339	\$754,505
40	\$201,657	\$180,645	\$21,012	\$775,517
41	\$206,705	\$186,020	\$20,685	\$796,202
42	\$211,673	\$191,314	\$20,359	\$816,561
43	\$216,558	\$196,526	\$20,032	\$836,593
44	\$221,362	\$201,657	\$19,705	\$856,298
45	\$226,084	\$206,705	\$19,379	\$875,677
46	\$230,725	\$211,673	\$19,052	\$894,729
47	\$235,284	\$216,558	\$18,726	\$913,455
48	\$239,761	\$221,362	\$18,399	\$931,854
49	\$244,157	\$226,084	\$18,072	\$949,926
50	\$248,471	\$230,725	\$17,746	\$967,672
51	\$252,703	\$235,284	\$17,419	\$985,091
52	\$256,854	\$239,761	\$17,093	\$1,002,184
53	\$260,923	\$244,157	\$16,766	\$1,018,950
54	\$264,910	\$248,471	\$16,439	\$1,035,389
55	\$268,816	\$252,703	\$16,113	\$1,051,502
56	\$272,640	\$256,854	\$15,786	\$1,067,288
57	\$276,382	\$260,923	\$15,460	\$1,082,748
58	\$280,043	\$264,910	\$15,133	\$1,097,881
59	\$283,622	\$268,816	\$14,806	\$1,112,687
60	\$287,119	\$272,640	\$14,480	\$1,127,167
61	\$290,535	\$276,382	\$14,153	\$1,141,320
62	\$293,869	\$280,043	\$13,826	\$1,155,146
63	\$297,122	\$283,622	\$13,500	\$1,168,646
64	\$300,293	\$287,119	\$13,173	\$1,181,819
65	\$303,382	\$290,535	\$12,847	\$1,194,666
66	\$306,389	\$293,869	\$12,520	\$1,207,186
	\$9,634,963	\$8,427,777	\$1,207,186	

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(Table 2)

Present Value of Difference in Expected Earnings (No Future Inflation)

Age	Difference in Expected Earnings (No Future Inflation)	Real Discount Factor	Present Value of Difference in Expected Earnings	Cumulative Present Value of Difference in Expected Earnings
22	\$80,360	1.00000	\$80,360	\$80,360
23	\$103,333	1.00000	\$103,333	\$183,693
24	\$109,770	1.00000	\$109,770	\$293,463
25	\$116,125	1.00000	\$116,125	\$409,589
26	\$42,039	1.00000	\$42,039	\$451,628
27	\$25,258	0.99138	\$25,040	\$476,668
28	\$24,931	0.98282	\$24,503	\$501,171
29	\$24,605	0.97435	\$23,973	\$525,144
30	\$24,278	0.96594	\$23,451	\$548,596
31	\$23,951	0.95761	\$22,936	\$571,532
32	\$23,625	0.94935	\$22,428	\$593,960
33	\$23,298	0.94117	\$21,927	\$615,888
34	\$22,972	0.93305	\$21,434	\$637,321
35	\$22,645	0.92500	\$20,947	\$658,268
36	\$22,318	0.91702	\$20,466	\$678,734
37	\$21,992	0.90911	\$19,993	\$698,727
38	\$21,665	0.90127	\$19,526	\$718,253
39	\$21,339	0.89350	\$19,066	\$737,319
40	\$21,012	0.88579	\$18,612	\$755,932
41	\$20,685	0.87815	\$18,165	\$774,096
42	\$20,359	0.87058	\$17,724	\$791,820
43	\$20,032	0.86307	\$17,289	\$809,109
44	\$19,705	0.85563	\$16,861	\$825,970
45	\$19,379	0.84825	\$16,438	\$842,408
46	\$19,052	0.84093	\$16,022	\$858,430
47	\$18,726	0.83368	\$15,611	\$874,041
48	\$18,399	0.82649	\$15,207	\$889,247
49	\$18,072	0.81936	\$14,808	\$904,055
50	\$17,746	0.81229	\$14,415	\$918,470
51	\$17,419	0.80528	\$14,027	\$932,497
52	\$17,093	0.79834	\$13,646	\$946,143
53	\$16,766	0.79145	\$13,269	\$959,412
54	\$16,439	0.78463	\$12,899	\$972,311
55	\$16,113	0.77786	\$12,533	\$984,845
56	\$15,786	0.77115	\$12,173	\$997,018
57	\$15,460	0.76450	\$11,819	\$1,008,837
58	\$15,133	0.75791	\$11,469	\$1,020,306
59	\$14,806	0.75137	\$11,125	\$1,031,431
60	\$14,480	0.74489	\$10,786	\$1,042,217
61	\$14,153	0.73846	\$10,452	\$1,052,668
62	\$13,826	0.73209	\$10,122	\$1,062,791
63	\$13,500	0.72578	\$9,798	\$1,072,589
64	\$13,173	0.71952	\$9,478	\$1,082,067
65	\$12,847	0.71331	\$9,164	\$1,091,231
66	\$12,520	0.70716	\$8,854	\$1,100,084
	\$1,207,186		\$1,100,084	

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(Table 3)

Present Value of Difference in Expected Earnings (Future Inflation)

Age	Difference in Expected Earnings (Future Inflation)	Nominal Discount Factor	Present Value of Difference in Expected Earnings	Cumulative Present Value of Difference in Expected Earnings
22	\$80,360	1.00000	\$80,360	\$80,360
23	\$103,333	1.00000	\$103,333	\$183,693
24	\$109,770	1.00000	\$109,770	\$293,463
25	\$116,125	1.00000	\$116,125	\$409,589
26	\$42,039	1.00000	\$42,039	\$451,628
27	\$26,016	0.96250	\$25,040	\$476,668
28	\$26,450	0.92641	\$24,503	\$501,171
29	\$26,886	0.89167	\$23,973	\$525,144
30	\$27,325	0.85823	\$23,451	\$548,596
31	\$27,766	0.82605	\$22,936	\$571,532
32	\$28,209	0.79507	\$22,428	\$593,960
33	\$28,654	0.76525	\$21,927	\$615,888
34	\$29,100	0.73656	\$21,434	\$637,321
35	\$29,547	0.70894	\$20,947	\$658,268
36	\$29,994	0.68235	\$20,466	\$678,734
37	\$30,442	0.65676	\$19,993	\$698,727
38	\$30,889	0.63213	\$19,526	\$718,253
39	\$31,336	0.60843	\$19,066	\$737,319
40	\$31,782	0.58561	\$18,612	\$755,932
41	\$32,227	0.56365	\$18,165	\$774,096
42	\$32,670	0.54252	\$17,724	\$791,820
43	\$33,110	0.52217	\$17,289	\$809,109
44	\$33,547	0.50259	\$16,861	\$825,970
45	\$33,981	0.48374	\$16,438	\$842,408
46	\$34,410	0.46560	\$16,022	\$858,430
47	\$34,835	0.44814	\$15,611	\$874,041
48	\$35,254	0.43134	\$15,207	\$889,247
49	\$35,667	0.41516	\$14,808	\$904,055
50	\$36,074	0.39959	\$14,415	\$918,470
51	\$36,472	0.38461	\$14,027	\$932,497
52	\$36,862	0.37019	\$13,646	\$946,143
53	\$37,242	0.35630	\$13,269	\$959,412
54	\$37,612	0.34294	\$12,899	\$972,311
55	\$37,971	0.33008	\$12,533	\$984,845
56	\$38,317	0.31770	\$12,173	\$997,018
57	\$38,650	0.30579	\$11,819	\$1,008,837
58	\$38,969	0.29432	\$11,469	\$1,020,306
59	\$39,271	0.28329	\$11,125	\$1,031,431
60	\$39,557	0.27266	\$10,786	\$1,042,217
61	\$39,825	0.26244	\$10,452	\$1,052,668
62	\$40,073	0.25260	\$10,122	\$1,062,791
63	\$40,300	0.24312	\$9,798	\$1,072,589
64	\$40,505	0.23401	\$9,478	\$1,082,067
65	\$40,686	0.22523	\$9,164	\$1,091,231
66	\$40,841	0.21679	\$8,854	\$1,100,084
	\$1,820,952		1,100,084	

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(Table 4)

Disposition of Present Value Amount (No Inflation)

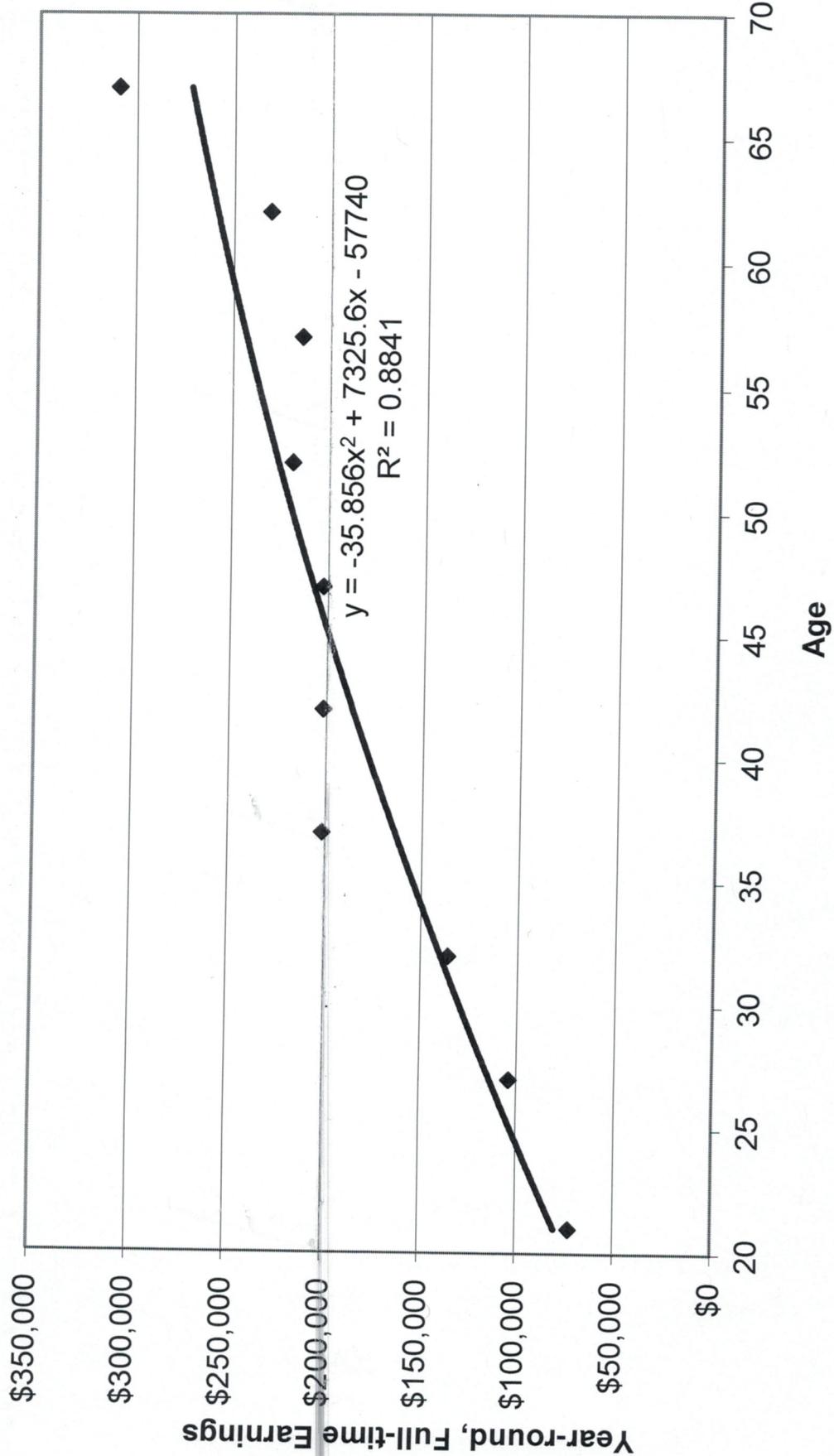
Age	Beginning Balance	Interest Earned	Income Loss	Ending Balance
22	\$1,100,084	\$0	\$80,360	\$1,019,724
23	\$1,019,724	\$0	\$103,333	\$916,391
24	\$916,391	\$0	\$109,770	\$806,621
25	\$806,621	\$0	\$116,125	\$690,496
26	\$690,496	\$0	\$42,039	\$648,457
27	\$648,457	\$5,642	\$25,258	\$628,840
28	\$628,840	\$5,471	\$24,931	\$609,380
29	\$609,380	\$5,302	\$24,605	\$590,077
30	\$590,077	\$5,134	\$24,278	\$570,933
31	\$570,933	\$4,967	\$23,951	\$551,948
32	\$551,948	\$4,802	\$23,625	\$533,125
33	\$533,125	\$4,638	\$23,298	\$514,465
34	\$514,465	\$4,476	\$22,972	\$495,970
35	\$495,970	\$4,315	\$22,645	\$477,640
36	\$477,640	\$4,155	\$22,318	\$459,477
37	\$459,477	\$3,997	\$21,992	\$441,482
38	\$441,482	\$3,841	\$21,665	\$423,658
39	\$423,658	\$3,686	\$21,339	\$406,005
40	\$406,005	\$3,532	\$21,012	\$388,526
41	\$388,526	\$3,380	\$20,685	\$371,221
42	\$371,221	\$3,230	\$20,359	\$354,091
43	\$354,091	\$3,081	\$20,032	\$337,140
44	\$337,140	\$2,933	\$19,705	\$320,368
45	\$320,368	\$2,787	\$19,379	\$303,776
46	\$303,776	\$2,643	\$19,052	\$287,367
47	\$287,367	\$2,500	\$18,726	\$271,141
48	\$271,141	\$2,359	\$18,399	\$255,101
49	\$255,101	\$2,219	\$18,072	\$239,248
50	\$239,248	\$2,081	\$17,746	\$223,583
51	\$223,583	\$1,945	\$17,419	\$208,109
52	\$208,109	\$1,811	\$17,093	\$192,827
53	\$192,827	\$1,678	\$16,766	\$177,739
54	\$177,739	\$1,546	\$16,439	\$162,846
55	\$162,846	\$1,417	\$16,113	\$148,150
56	\$148,150	\$1,289	\$15,786	\$133,653
57	\$133,653	\$1,163	\$15,460	\$119,356
58	\$119,356	\$1,038	\$15,133	\$105,261
59	\$105,261	\$916	\$14,806	\$91,371
60	\$91,371	\$795	\$14,480	\$77,686
61	\$77,686	\$676	\$14,153	\$64,209
62	\$64,209	\$559	\$13,826	\$50,941
63	\$50,941	\$443	\$13,500	\$37,884
64	\$37,884	\$330	\$13,173	\$25,041
65	\$25,041	\$218	\$12,847	\$12,412
66	\$12,412	\$108	\$12,520	\$0

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(Table 5)

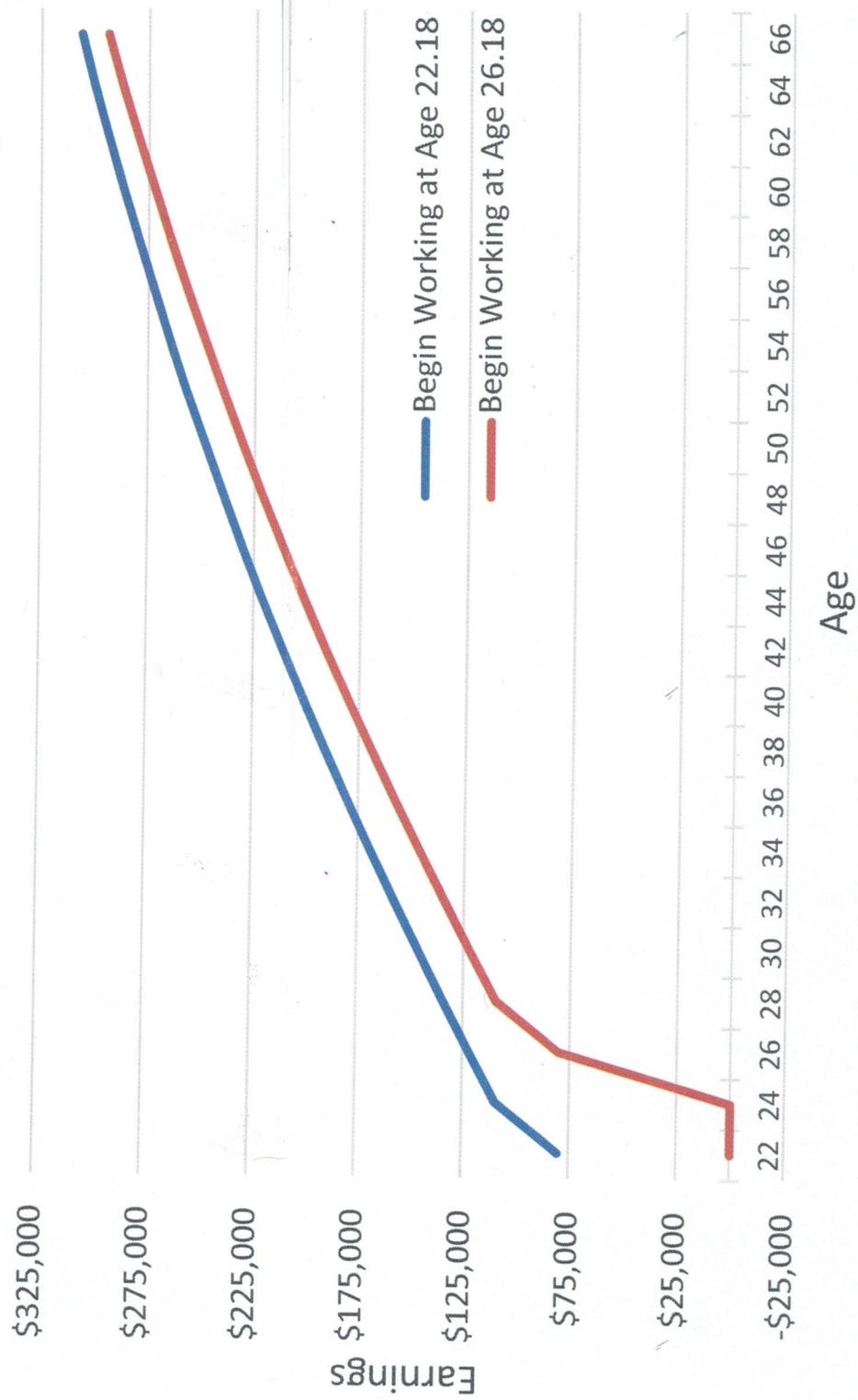
Disposition of Present Value Amount (Inflation)

Age	Beginning Balance	Interest Earned	Income Loss	Ending Balance
22	\$1,100,084	\$0	\$80,360	\$1,019,724
23	\$1,019,724	\$0	\$103,333	\$916,391
24	\$916,391	\$0	\$109,770	\$806,621
25	\$806,621	\$0	\$116,125	\$690,496
26	\$690,496	\$0	\$42,039	\$648,457
27	\$648,457	\$25,265	\$26,016	\$647,706
28	\$647,706	\$25,235	\$26,450	\$646,491
29	\$646,491	\$25,188	\$26,886	\$644,793
30	\$644,793	\$25,122	\$27,325	\$642,590
31	\$642,590	\$25,036	\$27,766	\$639,859
32	\$639,859	\$24,930	\$28,209	\$636,580
33	\$636,580	\$24,802	\$28,654	\$632,727
34	\$632,727	\$24,652	\$29,100	\$628,279
35	\$628,279	\$24,478	\$29,547	\$623,211
36	\$623,211	\$24,281	\$29,994	\$617,498
37	\$617,498	\$24,058	\$30,442	\$611,115
38	\$611,115	\$23,810	\$30,889	\$604,035
39	\$604,035	\$23,534	\$31,336	\$596,233
40	\$596,233	\$23,230	\$31,782	\$587,680
41	\$587,680	\$22,897	\$32,227	\$578,349
42	\$578,349	\$22,533	\$32,670	\$568,213
43	\$568,213	\$22,138	\$33,110	\$557,241
44	\$557,241	\$21,711	\$33,547	\$545,404
45	\$545,404	\$21,249	\$33,981	\$532,673
46	\$532,673	\$20,753	\$34,410	\$519,016
47	\$519,016	\$20,221	\$34,835	\$504,402
48	\$504,402	\$19,652	\$35,254	\$488,800
49	\$488,800	\$19,044	\$35,667	\$472,176
50	\$472,176	\$18,396	\$36,074	\$454,499
51	\$454,499	\$17,708	\$36,472	\$435,735
52	\$435,735	\$16,977	\$36,862	\$415,850
53	\$415,850	\$16,202	\$37,242	\$394,810
54	\$394,810	\$15,382	\$37,612	\$372,580
55	\$372,580	\$14,516	\$37,971	\$349,125
56	\$349,125	\$13,602	\$38,317	\$324,410
57	\$324,410	\$12,639	\$38,650	\$298,400
58	\$298,400	\$11,626	\$38,969	\$271,057
59	\$271,057	\$10,561	\$39,271	\$242,346
60	\$242,346	\$9,442	\$39,557	\$212,231
61	\$212,231	\$8,269	\$39,825	\$180,675
62	\$180,675	\$7,039	\$40,073	\$147,642
63	\$147,642	\$5,752	\$40,300	\$113,094
64	\$113,094	\$4,406	\$40,505	\$76,995
65	\$76,995	\$3,000	\$40,686	\$39,309
66	\$39,309	\$1,532	\$40,841	\$0



QPL_001128

Earnings by Age



CURRICULUM VITAE

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AREAS OF RESEARCH INTEREST:

Forensic Economics
Economic Forecasting
Applied Econometrics

EDUCATION:

Ph.D., Economics, Indiana University, 1986
M.A., Economics, Indiana University, 1978
B.A., Economics and Philosophy, Tulane University, 1974

EMPLOYMENT:

1988-
President of Albrecht Economics

1990-1999
Adjunct Associate Professor, Department of Economics, Wake Forest University

1987-1989

Assistant Professor, Department of Economics, Wake Forest University

1984-1987

Director of Econometric Modeling and Research Scientist, Institute for Public Policy and Business Research, University of Kansas, Lawrence, Kansas. Main responsibility was the design and development of an econometric forecasting model for the state of Kansas. Other responsibilities included supervising impact studies, writing quarterly outlook monographs for publication in the *Kansas Business Review*, and, serving on the editorial board for the *Review*.

1978-1984

Research Associate, Division of Research, School of Business, Indiana University, Bloomington, Indiana. Responsibilities included the development of and forecasting with state and sub-state econometric models, and, assistance in the generation of forecasts with a national econometric model.

1980-1981

Lecturer, School of Business, Indiana University, Bloomington, Indiana

1976-1978

Associate Instructor, Department of Economics, Indiana University, Bloomington, Indiana

SERVICE TO THE PROFESSION

2007-2010

Vice President and Member of the Board of Directors, National Association of Forensic Economics

1999-2003

CEO of Society of Litigation Economists, a not-for-profit organization dedicated to insuring high standards in the application of economic principles to valuations. The membership of the Society of Litigation Economists is limited to economists who have demonstrated a high level of expertise in forensic economics.

1991-Present

Referee, *Journal of Forensic Economics*

1991-Present

Referee, *Journal of Legal Economics*

COURSES TAUGHT:

Econometrics
Economic Forecasting
Introductory Economics
Regional Economics
Statistics
Microeconomics

PUBLICATIONS:

"The U.S. Approach to Computing Economic Damages Due to Personal Injury and Wrongful Death," (with Kurt V. Krueger) in *Personal Injury and Wrongful Death Damages Calculations: Transatlantic Dialogue*, John O. Ward and Robert J. Thornton, ed., Emerald Books, 2009, pp. 193-232.

"The Present Value of Lost Financial Support Due to Wrongful Death," (with Kurt V. Krueger) *Journal of Legal Economics*, Vol. XV, No. 1, August 2008, pp. 35-42.

"A Review of the Economic Foundations of Earnings and Discounting Theories Used in Forensic Economics," (with Kurt V. Krueger) *The Earnings Analyst*, Volume IX , Spring 2007, pp. 1-34.

"Assessing Economic Damages in Personal Injury and Wrongful Death Litigation: The State of North Carolina," (with George A. Schieren) *Journal of Forensic Economics*, Vol. XIX, No. 1, Winter 2006, pp. 89-101.

"Introduction to the Whole-time Concept," (with Kurt V. Krueger and John O. Ward) *Journal of Forensic Economics*, Vol. XIV, No. 1, Winter 2001, pp. 3-8.

"It's About Time: The Forensic Economic Evaluation," (with Kurt V. Krueger and John O. Ward) *Journal of Forensic Economics*, Vol. XI, No. 3, Fall 1998, pp. 203-213.

"Risk and Damage Awards: Short-Term Bonds Vs. Long-Term Bonds," *Journal of Legal Economics*, Vol. 7, No.1, Spring/Summer 1997, pp. 48-54.

"The Need to Use Risk-Free Discount Rates," *Journal of Legal Economics*, Vol. 7, No.1, Spring/Summer 1997, pp. 92-95.

"Economic Valuation of Life: A Cumulative Approach," in *The New Hedonics Primer for Economists and Attorneys*, 2nd Edition, John O. Ward, ed., Tucson, Arizona; Lawyers & Judges Publishing Co. 1996, pp. 171-175.

Journal of Forensic Economics, Volume VII, No. 3, Gary R. Albrecht, editor. Includes "Modeling Taxes in Personal Injury and Wrongful Death Award Calculations," pp. 1-4.

"The Application of the Hedonic Damages Concept to Wrongful Death and Personal Injury Litigation," *Journal of Forensic Economics*, Volume VII, No. 2, Spring/Summer 1994, pp. 143-150.

"Compensatory Damages and the Appropriate Discount Rate: Comment," *Journal of Forensic Economics*, Volume VI, No. 3, Fall 1993, pp. 271-272.

"The Role of Productivity and Prices in Forecasting Wage Rates," (with Kurt V. Krueger) *Journal of Forensic Economics*, Volume V, No. 3, Fall 1992, pp. 187-195.

"Issues Affecting the Calculated Value of Life," *Journal of Forensic Economics*, Volume V, No. 2, Spring/Summer 1992, pp. 97-104, and in *A Hedonics Primer for Economists and Attorneys*, John O. Ward, ed., Tucson, Arizona; Lawyers & Judges Publishing Co. 1992, pp. 197-205.

"Calculating the Value of a Closely Held Firm," *Journal of Legal Economics*, Volume 1, No. 3, December 1991, pp. 1-4.

"Calculating the Lost Pleasure of Life Due to Injury," *TrialBriefs*, Volume 23, No. 3, Third Quarter, 1991, pp. 16-17.

"Forecasting the Earnings of a Partially Disabled Individual," *Journal of Legal Economics*, Volume 1, No. 2, July 1991, pp. 50-57.

"The Valuation of a Closely Held Firm," *Trial Briefs*, Volume 22, No. 4, Fourth Quarter, 1990, pp. 37-39.

"The Valuation of a Closely Held Firm: Comment," *Journal of Forensic Economics*, Volume 3, No. 1, December, 1989, pp. 65-68.

"On the Derivation and Consistent Use of Growth and Discount Rates for Future Earnings," (with John C. Moorhouse), *Journal of Forensic Economics*, Volume 2, No. 3, August, 1989, pp. 95-102.

"The Kansas Economy," (with Anthony Redwood), in H. Flentje ed., *Kansas Policy Choices*, Lawrence, Kansas: University of Kansas Press, 1986.

"An Economic Perspective of Rate Suppression Legislation," (with Douglas Houston and Anthony Redwood), *Kansas Law Review*, Volume 33, No. 3, 1985.

"Kansas Exports and Economic Development," (with Shirley Sicilian and Kurt Krueger), *Kansas Business Review*, Fall, 1985.

"The Kansas Econometric Forecasting Model," *Kansas Business Review*, Fall, 1985.

"Long-Term Structural Changes in the Kansas Economy," (with Anthony Redwood and Daniel Petree), *Kansas Business Review*, Winter, 1984-1985.

"An Introduction to the Econometric Model of Indiana," (with R. L. Pfister), *Indiana Business Review*, February, 1981.

"Testing for Causality in Regional Econometric Models," (with R. Jeffery Green), *International Regional Science Review*, Winter, 1979.

ACADEMIC PAPER PRESENTATIONS:

"Scheduled Economic Damages and Tort Reform in the United States," (with John O. Ward and Kurt V. Krueger) Allied Social Science Association Annual Meetings: National Association of Forensic Economics National Meetings. Chicago, IL, January 2007.

"Scheduled Damages and Tort Reform: An International Analysis and a Proposal for Consideration in the United States," (with Kurt V. Krueger and John O. Ward) NAFE 2006 International Meetings. Florence, Italy, May 2006.

"Assessing Economic Damages in Personal Injury and Wrongful Death Litigation: The State of North Carolina," (with George A. Schieren) Annual Meeting: Western Economic International Association. San Francisco, CA, July 2005.

"A Primer on Earnings Growth and Discounting," (with Kurt V. Krueger) Annual Meeting: Southern Economic Association. New Orleans, LA, November 2004.

"Economic Damage Analysis," (with Kurt V. Krueger and John O. Ward) American Social Science Association Annual Meeting: American Economic Association Annual Meeting. Atlanta, GA, January 2002.

"Estimating Economic Damages as a Result of Diminished Productivity in Work and Non-Work Time," (with Kurt V. Krueger and John O. Ward) Annual Western Economic Association Annual Conference, San Diego, CA, July 1977.

"The Objective Science of Forensic Economics," presented at the Sixty-Eighth Annual Western Economic Association Conference, Lake Tahoe, June 22, 1993.

"Proof that Saving with Short-Term Bonds Minimizes Purchasing Power Fluctuation Risk," presented at the American Economic Association Conference, New Orleans, January 4, 1992.

"Income Taxes and Economic Loss Calculations," (with Kurt V. Krueger) presented at the Sixty-Sixth Annual Western Economic Association Conference, Seattle, June 30, 1991.

"The Adequacy of Proxy Variables in Forecasting Wage Rates," presented at the Sixty-Fifth Annual Western Economic Association Conference, San Diego, June 30, 1990.

"A Short-Run Employment Function When Adjustment Costs are Linear," presented at the Sixty-First Annual Western Economic Association Conference, San Francisco, July, 1986.

"Choosing Among Forecasted National Variables for Use as Inputs Into Regional Forecasting Models," (with R. Jeffery Green), presented at the Twenty-Seventh Annual Mountain-Plains Economic Conference, 1985.

WORKING PAPER:

"The Kansas Econometric Model," Institute for Public Policy and Business Research, The University of Kansas, July, 1987.

AFFILIATIONS:

American Academy of Economic and Financial Experts
American Economic Association
National Association of Forensic Economics

Case Testimony

Attorney	Case Caption	Type Date	Place
Megan Silver	Vivian B. Wethington and Roy E. Wethington v Lucas J. Martinez, M.C. et al. 14 CVS 1275	Deposition 20-Nov-15	Winston-Salem NC
Paul Capua	Andrea Morrell and G. Pony Boy Morrell, and The Pasta Wench, Inc. v Hardin Creek, Inc et al. 14 CVS 625	Deposition 12-Nov-15	Winston-Salem NC
Eugene Sisco	Cameron Brown v University of Pikeville C.A. NO. 13-CI-001561	Deposition 12-Oct-15	Winston-Salem NC
Glen Barfield	Alice G. Ballew, Administrator v Gloucester Engineering Co., Inc. 5:14-CV-402	Deposition 16-Sep-15	Raleigh NC
Bailey Melvin	Angela Marie Ogrim et al. v Todd Jerry Adams, M.D. et al. 13 CVS 2819	Deposition 14-Aug-15	Winston-Salem NC
Roger Young	Vivian R. Smith v Walter C. Robery, III, M.D. 11 CVS 2590	Deposition 29-Jul-15	Winston-Salem NC
Samuel Allen	Lisa Rollins v	Deposition 21-Jul-15	Winston-Salem NC

Case Testimony

Trident Medical Center et al.
C/A No. 2013-CP-10-04063

Graham Stiles	Carlos Garcea et al. v Boxer Property Management et al. 13 CVS 11973	Deposition 15-Jul-15	Winston-Salem NC
Jay Trehy	Celeste Evelyn Smith v Novant Health, Inc et al. 14 CVS 407	Deposition 8-Jun-15	Winston-Salem NC
Justine Adamski	Horsham v Alessandro Golino et al. 41 2014CA000709AX	Deposition 21-May-15	Winston-Salem NC
David Gilpin	Tamikea Swaringer v Charlotte -Mecklenburg Board of Education I.C. File No. TA-23941	Deposition 4-May-15	Charlotte NC
Brent Halversen	Harbor National Bank v Anthony M. Whitfield 2012-CP-10-5887	Deposition 1-Apr-15	Winston-Salem NC
Gregory Kash	Brian Christopher Lee v Town of Seaboard 2:13-CV-20	Deposition 18-Feb-15	Winston-Salem NC
Rich	Mathew B. Schroeders	Deposition	Winston-Salem

Case Testimony

Cassady	v Old Edwards Hospitality 13-CVS-503	27-Jan-15	NC
Susan Hofer	The Estate of Thomas Littlejohn, III, M.D. v Jet Logistics, Inc. Case N. 11-CVS-24301	Deposition 7-Jan-15	Charlotte NC
Richard K. Muntz	The Estate of Barry N. Loutzenhiser, Deceased v Christian Union Cemetery, Inc John Ley Monument Sales, Inc. Cause No. 17D02-1107-CT-23	Deposition 6-Jan-15	Winston-Salem NC
Sean Herrmann	Robert Carlin v Federal Defenders of Western North Carolina Cival Action No. 3:13-CV-00365	Deposition 22-Oct-14	Winston-Salem NC
C. Adam Helmer	Teresa Creech Morgan v. Carlos A. De La Garza, M.D. 12-CVS-1587	Deposition 4-Sep-14	Winston-Salem NC
Samuel A. Scudder	Janice Stallard v. Carlos A. De La Garza, M.D. 12-CVS-1587	Deposition 27-Aug-14	Winston-Salem NC
Darol Carr	BAC Florida Bank v. Cypress Woods V, LLC 12-CA-052486	Deposition 8-Aug-14	Winston-Salem NC

Case Testimony

Finesse G. Couch	Trace Johnson v. Wayne Memorial Hospital, Inc et al. 13-CVS-1023	Deposition 6-Aug-14	Winston-Salem NC
James .R Van Camp	Estate of James Layman Westbrook, Jr v. Michael Aaron Overton d/b/a Overton Logging 13-CVS-289	Trial 17-Jul-14	Carthage NC
Ryan Gaylord	Donna Moore v. Charles T. Rowe, M.D. and Asheville Radiology Associates 13 CVS 3819	Deposition 30-Jun-14	Winston-Salem NC
Sean Herrmann	Mark Grevera v Microsoft Corporation 12-CVS-0261- MOC-DSC	Deposition 19-Jun-14	Winston-Salem NC
Lyndon Helton	Gladys H. Mullen v Catawba Valley Medical Center 11-CVS-3004 and 12-CVS-2664	Deposition 26-May-14	Newton NC
William Mills	Matthew Ordway v Shawn Murphy and Amanda Valdes Superior Court Division 12-CVS-2556	Deposition 20-May-14	Durham NC

Case Testimony

James Ferguson	Alisha Fulton Guardian for Wesley Eugene Huffman v Stephen P. Kikel, M.D. Mountain Emergency Physicians, Valdese General Hospital Superior Court Division 011-CVS-1549	Deposition 15-May-14	Winston-Salem NC
William Mills	Matthew Ordway v Shawn Murphy and Amanda Valdes Superior Court Division 12-CVS-2556	Deposition 9-May-14	Durham NC
Charles Puttermann	Sondra Murphy, Guardian for Lonas Cooper v Mission Health System, Inc., et al Superior Court Division 11-CVS-04894	Trial 25-Apr-14	Asheville NC
Bill West	Estate of John C. Myrick v North Carolilna Baptist Hospital, Inc. and Steelfab, Inc. 11 CVS 3210	Deposition 18-Apr-14	Winston-Salem NC
Troy J. Stafford	Dustin S. Miller v KBR Building Group, LLC and Steelfab, Inc. Superior Court 12 CVS 23222	Deposition 16-Apr-14	Winston-Salem NC
Troy J. Stafford	Robert Lewis Blevin v Samuel Terry Elliott, D.C and Elliott Chiropractic Center	Deposition 11-Apr-14	Winston-Salem NC

Case Testimony

Superior Court 13 CVS 1091

Michael J. Levine	Gary Latimer v The Estate of Tad Daugherty Superior Court 12 CVS 9705	Trial 24-Mar-14	Charlotte NC
Sigsbee Miller	Wanda Anderson v Yadkin County board of Education North Carolina Industrial Commission I.C. file No. TA-23259	Deposition 14-Mar-14	Winston-Salem NC
Arlene Colon	Cardoch v Matthew S. Johnson Wake County Superior Court; 12 CVS 10675	Deposition 25-Feb-14	Winston-Salem NC
Lyndon Helton	Gladys H. Mullen v Catawba Valley Medical Center	Deposition 20-Jan-14	Winston-Salem NC
Samuel K. Allen	Lloyd Wheeler v Adediji Osinloye, M.D. et al.	Deposition 17-Dec-13	Charleston SC
Robert M. Elliot	Whitney Stephenson v Pfizer Inc.	Deposition 12-Dec-13	Winston-Salem NC
D. Stuart Smith	Maria Mallner v Lindsey S. Hosner	Deposition 27-Nov-13	Winston-Salem NC
Christopher Kroblin	Melinda Sorber v	Trial 20-Nov-13	St. Thomas VI

Case Testimony

Glacial Energy

E. Vernon F. Glenn	Estate of Steven F. Ray v Rex Hospital and Alex W. Gener. RN	Deposition 7-Nov-13	Winston-Salem NC
James E. Ferguson	Tokisha Ingram v Henderson County Hospital Corporation, Inc. et al.	Deposition 23-Oct-13	Winston-Salem NC
Robert Jessup	Mary E. Lyons - Felton v Edenton-Chowan Board of Education	Deposition 27-Aug-13	Winston-Salem NC
R. Bailey Melvin	Randy Ledezma	Deposition 29-Apr-13	Winston-Salem NC
Edward Friedman	Dockery v 803 Trucking et. Al	Deposition 24-Apr-13	Raleigh NC
Lynwood P. Evans	Emma Guzman v	Deposition 2-Apr-13	Winston-Salem NC
Samuel K. Allen	Cindy B. Gaskins v Joan M. Baker	Deposition 13-Mar-13	Winston-Salem NC
Stewart Fisher	Marilyn Cook v Bank of America	Deposition 18-Feb-13	Winston-Salem NC
William E. Moore, Jr.	Brandy Wortman v	Deposition 21-Jan-13	Gastonia NC

Case Testimony

Todd Michael Alford, M.D. et al.

Charles M. Puttermann	Lonas Timothy Cooper v Mission Health System, Inc.	Deposition 30-Nov-12	Kernersville NC
E. Hardy Lewis	Bobbie Fischer v North Carolina Highway Patrol	Deposition 27-Nov-12	Winston-Salem NC
David A. Vesel	Stephen Strickland v. Sampson Regional Medical Center, et al.	Deposition 19-Nov-12	Winston-Salem NC
R. Tony Hill	Asid Kahn v Dell Inc	Deposition 23-Oct-12	High Point NC
Aaron Hemmings	William Costello v Lodgeworks, Limited Partnership et al.	Deposition 5-Sep-12	Raleigh NC
Sigsbee Miller	Robert Owens Dewees,II v Camping Baskatong, Inc. and Yves Touchette	Deposition 3-Jul-12	Winston-Salem NC
Andrew Kemp-Gerstel	Susan Dee Schnur v Bank of America	Deposition 27-Jun-12	Winston-Salem NC
James E.	Valerie Walker, Personal Representative	Deposition	Winston-Salem

Case Testimony

Rogers	of the Estate of Angre Walker v AlliedBarton (NC), LLC and Allied Barton Security Systems, LLC	12-Jun-12	NC
Lareena Phillips	Chastity Davidson v City of Statesville, et al.	Deposition 11-Apr-12	Winston-Salem NC
Russell Johnson	Timothy Heffron, M.D. v Duke University Health System	Deposition 10-Apr-12	Raleigh NC
Brian Colistra	Timothy Perdue and Stephanie Perdue v Piaggio America Inc., Piedmont Hawthorne Aviation, Thomas Mathews, Michael Weeks and Douglas Cooper	Deposition 2-Mar-12	Winston-Salem NC
William Simpson	Willie Pearson and Theotis Pearson v Forsyth Emergency Services and Bruce R. Bolling, MD	Trial 29-Feb-12	Winston-Salem NC
Kurt L. Dixon	Vera Bailey Bollten v Robert Bruce Broadwell	Trial 6-Feb-12	Wilmington NC
Grant Sigmon	Swartz v Onslow Memorial Hospital	Deposition 17-Jan-12	Winston-Salem NC
Donald Strickland	Jane Wheeler v Charlie Bynum, III; The Durham Herald Company; and Paxton Media Group	Deposition 11-Jan-12	Winston-Salem NC

Case Testimony

Harvey Kennedy	David E. Combs v City Electric Supply Company	Arbitration 16-Nov-11	Winston-Salem NC
Timothy Welborn	Burchette v Heartland Express and Gary Enders	Deposition 11-Nov-11	Winston-Salem NC
Joe Knott	Weaver v Sheppa and Marshall	Trial 9-Nov-11	Lillington NC
Karen Rabenau	Edmondson v Gatlin et al.	Deposition 28-Aug-11	Clemmons NC
William Simpson	Willie Pearl Pearson v	Deposition 28-Jun-11	Winston-Salem NC
David Duke	Chris J. Smallwood v Eric Dewayne Marshall	Deposition 6-Jun-11	Winston-Salem NC
Roderick McIver	Monquie Carpenter v Willie McKinney et all.	Deposition 3-Jun-11	Winston-Salem NC
Richard Mu	Ethan Mrashall Robinson v Evenflo company,Inc	Deposition 25-May-11	Winston-Salem NC
Jay Trehy	Inman v Excel Industries, Inc	Deposition 10-May-11	Winston-Salem NC
Robert	Swick	Deposition	Winston-Salem

Case Testimony

Ekstrand	v James Wilde, Randi Mason et al.	30-Mar-11	NC
Stephen Gray	Sheila Ward Smith v Rick Burris and Jamie Lynn Shue	Trial 25-Mar-11	Albermarle NC
Harvey Kennedy	LaShanda Shaw v The Goodyear Tire & Rubber Company	Trial 17-Mar-11	Fayetteville NC
James R. Nance, Jr.	Betty Davis v	Deposition 21-Feb-11	Winston-Salem NC
William E. Moore, Jr.	Margaret Joann Scruggs v City of Mr. Holly, et al.	Deposition 3-Feb-11	Gastonia NC
Charles Rawlings	Estate of Bobby Dean Robbins v Paul K. Davis, PA-C et all	Deposition 2-Feb-11	Winston-Salem NC
Aaron Hemmings	Lee Lemons v Penn National Insurance	Arbitration 18-Jan-11	Charlotte NC
Harvey Kennedy	David E. Combs v City Electric Supply Company	Trial 13-Jan-11	Winston-Salem NC
Kenneth Murphy	Kenneth Weaver v	Deposition 21-Dec-10	Winston-Salem NC

Case Testimony

Charles Michael Sheppa, MD, et al.

H. Edward Knox	Benton, et al. v Bates Engineers/Contractors et al.	Deposition 16-Nov-10	Charlotte NC
Drew Brown	Roger Dale Carter v Davidson Health Care, Inc et al.	Deposition 15-Oct-10	Greensboro NC
J. Stephen Gray	Smith v Rick Burris et al.	Deposition 7-Sep-10	Salisbury NC
Bruce Berger	Barbara M. Wilkinson, Administrator v WakeMed et al.	Trial 9-Aug-10	Raleigh NC
John A. Michaels	Walter Moreland, Administrator v McLaurin Parking company, et al.	Deposition 28-Jul-10	Greensboro NC
Eric Richardson	Sandra Jeane Crawford, Executrix of the Estate of Wilber Lee Crawford v M7K Development Corp., et. Al	Trial 21-Jul-10	Boone NC
George Moore	Douglas Kelly and Julie Kelly v Wulffhorst et al.	Deposition 13-Jul-10	Winston-Salem NC
Joe Knott	Wilkinson v	Deposition 13-Jul-10	Winston-Salem NC

Case Testimony

Aaron Hemmings	James Cobb v Pennsylvania Life Insurance et. All	Deposition 14-May-10	Raleigh NC
Eric Richardson	Sandra Jeanne Crawfor v M&K Development Corp et al.	Deposition 13-Apr-10	Winston-Salem NC
H. Forrest Horne	Christopher S. Smith v CSX Transportation	Deposition 12-Mar-10	Winston-Salem NC
M. Cory Howes	Marion Partners, LLC et al. v Weatherspoon & Voltz and William Weatherspoon	Deposition 25-Feb-10	Winston-Salem NC
William J. Devin	Jerry Walter Moore v BHB Enterprises et al.	Deposition 24-Feb-10	Charlotte NC
Charles Rawlings	Michael Chandler & Kathy Chandler v Randy Kritzer, M.D. and Carolina Neurosurgery	Deposition 13-Jan-10	Winston-Salem NC
Grant Mitchell	Betty Newell, Representative of the Estate of Jennifer Alexander v Halifax Regional Medical Center, Inc et al.	Deposition 15-Dec-09	Winston-Salem NC
Rebecca Britton	Estate of Gary Garner v	Deposition 26-Oct-09	Fayetteville NC
Kathleen G. Sumner	Thomas Jurrissen v	Deposition 8-Sep-09	Greensboro NC

Case Testimony

Keystone Foods, LLC

Daniel D. Moody	Bonagura v Stephen Michael Strait	Deposition 3-Sep-09	Sarasota FL
Charles Rawlings	Michael Chandler & Kathy Chandler v Randy Kritzer, M.D. and Carolina Neurosurgery	Deposition 31-Aug-09	Winston-Salem NC
Paul Rheingold	Phillip Evans, Guardian Ad Litem of J. Doe v. Duke University Health System, Inc.	Deposition 27-Aug-09	Chapel Hill NC
Donald Lively	Angelo Qwantez Wyche v. Kevin Cecil Cockrell; Mikes Paint and Body, Inc.; and Shaquan Dannard McCall	Deposition 6-Aug-09	Winston-Salem NC
Darol Carr	Galeana v. Gates	Trial 17-Jun-09	Fort Myers FL
Michael J. Pugh	NOACK v BLUE CROSS BLUE SHIELD OF FLORIDA	Deposition 21-May-09	Sarasota FL
William E. Moore, Jr.	DEAN SURRETT v THE CITY OF CHARLOTTE	Deposition 7-May-09	Charlotte NC
Aaron C. Hemmings	JOE EVANS v BOBBY SAMPSON	Arbitration 7-May-09	Raleigh NC

Case Testimony

William Mills	STRONG v WALMART	Deposition 16-Apr-09	Winston-Salem NC
Rebecca J. Britton	FRANCES BROCK v	Deposition 30-Mar-09	Winston-Salem NC
William Mills	FRYE, et all. v GREENE, et all	Trial 4-Mar-09	Marion NC

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